

REMARKS/ARGUMENTS

Claims 1-22 are active in this application. Support for the amendment to Claim 1 is found in the specification on page 15, lines 14-21. Claim 6 is amended for clarity. That is, the meaning of Claim 6 was not that the nucleic acid were eluted onto the carrier but rather the nucleic acids that were previously adsorbed to the carrier are subsequently eluted off the carrier. Nonetheless, this feature has been altered for clarity thereby obviating the rejection under 35 USC 112, second paragraph.

No new matter is believed to have been added by this amendment.

Applicants thank Examiner Young for the courtesy of meeting and discussing this case with their undersigned representative on July 19, 2006. During this meeting the new rejections raised in the Office Action based primarily on the disclosure in WO 98/51693 were discussed. As explained during this meeting this publication describes that essential steps of the method are to bind the cells with the solid carrier then lyse the cells in a manner that permits the nucleic acids to also bind to this solid carrier (see page 4, 1<sup>st</sup> paragraph and 3<sup>rd</sup> paragraph). This method is different from the claimed method where the cells in the sample are directly lysed after which the nucleic acids are bound to the solid-phase carrier. While the Examiner understood this difference, it was suggested to amend the claims to clarify the direct sample lysis followed by nucleic acid absorption and then based on this clarification, the rejection under 35 USC 102(b) would be withdrawn (see Interview Summary of July 19, 2006). To this end, the amended claim 1 as discussed is submitted in this paper.

It was also noted that as the secondary references cited with WO 98/51693 in the obviousness rejections do not describe anything relating to the method, the current obviousness rejections should also be withdrawn.

In particular, it was previously explained why the claimed invention has numerous advantages for real-world applications. As shown by a comparison of the Examples

according to the present invention and Comparative Example 1, the amount of nucleic acids recovered is superior in the present invention (see Table 1 reproduced below from the specification at page 33). Comparative Example 1 uses the phenol-chloroform extraction method which takes much longer (about 3 hours) compared to the present invention.

By using the method for extracting nucleic acids of the invention and the reagent thereof, nucleic acids can be purified from blood etc. in a large amount and a high purity, conveniently within a short period at a low cost. Also, the invention establishes a method that uses no toxic or corrosive solvent and thus is not harmful to working environment and workers. Therefore, the method is widely applicable to the fields of gene engineering, genetic diagnosis, genetic therapy, genome chemistry, genomic drug development, and the like. Moreover, the method is capable of automation of the treatment.

Such superior results are not disclosed or suggested by WO 98/51693, Ekeze et al, or Belley et al alone or in combination.

Notably, Ekeze is cited simply to teach the isolation of nucleic acids from blood samples but when combined with WO '693 fail to describe or suggest the invention claimed where the cells in the sample are directly lysed after which the nucleic acids are bound to the solid-phase carrier. Moreover, there is nothing in either publication which would suggest modifying the WO '693 disclosure to do what is claimed because WO '693 teaches away from doing what is claimed.

In addition, Belley is cited simply to discuss nucleic acid separation from tissue but when combined with WO '693 fail to describe or suggest the invention claimed where the cells in the sample are directly lysed after which the nucleic acids are bound to the solid-phase carrier. Moreover, there is nothing in either publication which would suggest modifying the WO '693 disclosure to do what is claimed because WO '693 teaches away from doing what is claimed.

Application No. 10/627,780  
Reply to Office Action of May 31, 2006

The rejection of the claims over WO 96/18731, Belly et al, and/or Ekeze et al are believed to be unsustainable as the present invention is neither anticipated nor obvious.

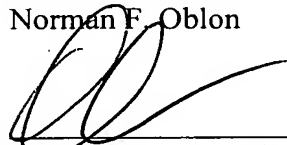
Withdrawal of these rejections is respectfully requested.

A Notice of Allowance for all pending claims is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, he is encouraged to contact Applicants' undersigned representative.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon



---

Daniel J. Pereira, Ph.D.  
Registration No. 45,518

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)